# MARINE RECREATIONAL INFORMATION PROGRAM

**FY   Project Plan**

**Assessment of External Data Indicators as Predictors of Fishing Effort**

**Created on**

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# 1. Overview

## 1.1. Background

Current methods for estimating fishing effort treat days within a month similarly, accounting for effort differences by weekday and weekend day types. The more salient aspects of the fishing environment have not been considered when making effort projections for unsampled days.

## 1.2. Project Description

External data elements will be evaluated for utility in predicting fishing effort. Once a list of candidate variables has been generated, we will research and determine whether data elements are accessible and can be incorporated into a fishing effort estimation model. Available data elements will be merged into a data set of historic effort sampling statistics at the most granular level for analysis (daily, weekly, monthly). Predictive models will be developed, assessed and tested to determine the efficacy of effort prediction.

## 1.3. Objectives

1. Determine what external factors are useful in predicting recreational fishing effort.
2. Build a predictive model using external data elements that will more accurately predict effort for any given day.

## 1.4. References

None

# 2. Methodology

## 2.1. Methodology

- Convene a meeting of interested parties (state representatives, fishery managers, data analysts, etc.) to brainstorm a list of potential external factors for predicting fishing effort. Most likely this will be done as a teleconference.
- Operationalize the external factors on the list to determine how each can be measured, obtained and incorporated into the modeling process.
- Data Manager will secure the necessary data and convert it into data files appropriate for analysis in SAS.
- Data Analyst will perform various analyses to determine the best possible models and work in consult with statistical experts to develop and refine models in an iterative process resulting in the most statistically robust predictors.

## 2.2. Regions


## 2.3. Geographic Coverage

Washington, Oregon and California

## 2.4. Temporal Coverage

1980 - 2012 ( as much accurate data is available for assessment)

## 2.5. Frequency

Once

## 2.6. Unit of Analysis

Fishing site by day

## 2.7. Collection Mode

Historical external data obtained from orignal agency resources in mass.

# 3. Communications Plan

### 3.1. Internal

Monthly conference call updates with the core team with additional calls as needed. Progress updates given at RecFIN Technical Committee meetings. Occasional email updates to broader team (advisory).

### 3.2. External

Monthly reports in MRIP Collaboration tool and final report of findings and recommendations for potential integration with estimates calculations.

# 4. Assumptions and Constraints

## 4.1. New Data

Yes

## 4.2. Track Costs

## 4.3. Funding Vehicle

RecFIN

## 4.4. Data Resources

To be determined in the course of project execution. This is a new data collection in the sense that existing data sources will be culled and new data sets created for integration with survey data.

## 4.5. Other Resources

## 4.6. Regulations

## 4.7. Other

# 5. Risk

## 5.1. Project Risk

Table 1: Project Risk

| Risk Description | Risk Impact | Risk Probability | Risk Mitigation Approach |
|---|---|---|---|

# 6. Final Deliverables

### 6.1. Additional Reports

Recommendations for ongoing use of external variants to predict recreational fishing effort

### 6.2. New Data Sets

to be determined

### 6.3. New Systems

to be determined

# 7. Project Leadership

## 7.1. Project Leader and Members

Table 2: Project Members

| Project Role | Name | Organization | Title |
|---|---|---|---|

# 8. Project Estimates

## 8.1. Project Schedule

Table 3: Project Schedule - Major Tasks and Milestones

| # | Schedule Description | Planned Start | Planned Finish | Prerequisites | Milestones |
|---|---|---|---|---|---|
| | | | | | |

## 8.2. Cost Estimates

Table 4: Cost Estimates

| Project Need | Cost Description | Date Needed | Estimated Cost |
|---|---|---|---|
| TOTAL | | | $0.00 |